

## CLAIMS

1. A light source driving method of a projector for projecting an image, wherein control of a driving waveform for supplying electric power to a light source and control for receiving said projected image and obtaining image data to adjust said projected image are synchronized.
2. The light source driving method of the projector according to claim 1, wherein
- the light source driving method comprises a synchronous signal generating process for generating a signal as an operation reference, and
- a light source driving section for supplying the electric power for operating the light source and an image obtaining section for receiving said projected image and obtaining the image data to adjust said projected image are operated in synchronization with said signal generated in said synchronous signal generating process.
3. The light source driving method of the projector according to claim 1 or 2, wherein
- said image obtaining section obtains said image data in a period of the same driving waveform in synchronization with the control of the driving waveform for supplying the electric power to said light source, and
- said light source driving section changes an electric current while lighting said light source after said image obtaining section obtains said image data.

4. A projector for projecting an image, wherein control of a driving waveform for supplying electric power to a light source and control for receiving said projected image and obtaining image data to adjust said projected image are synchronized.
5. The projector according to claim 4, wherein the projector comprises:
- the light source for emitting light;
- a light source driving section for supplying the electric power for operating the light source;
- an image obtaining section for receiving said projected image and obtaining the image data to adjust said projected image; and
- a synchronous signal generating section for generating a signal as an operation reference; and
- said synchronous signal generating section generates a first operation signal for determining operation timing of an electric current output of said light source driving section, and a second operation signal for determining operation timing for receiving said projected image and obtaining the image data by said image obtaining section, and said light source driving section and said image obtaining section are synchronously operated.
6. The projector according to claim 4 or 5, wherein said image obtaining section obtains said image data in a period of the same driving waveform in synchronization

with the control of the driving waveform for supplying the electric power to said light source, and

5       said light source driving section changes an electric current while lighting said light source after said image obtaining section obtains said image data.